

Cumberland Co. 24-02

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North Carolina  
Department of Environment and Natural  
Resources



Michael F. Easley, Governor  
William G. Ross Jr., Secretary  
Dexter R. Matthews, Director

March 19, 2002

Commander  
XVIII ABN Corps & Fort Bragg  
AFZA-PW  
Fort Bragg, North Carolina 28310

SUBJECT: Post-Closure of the Fort Bragg - Longstreet Road MSW Landfill Unit.  
**FACILITY PERMIT #: 26-02**  
**Modification #1: Construction of temporary concrete batch plant.**


Dear Colonel Bean:

The Solid Waste Section (the Section) has received and reviewed the documentation submitted by Caddell Construction Co. Inc. on your behalf regarding the placement of a temporary concrete batch plant at the Longstreet facility. Based on this documentation, and the attached site map from the groundwater monitoring report, the Section approves the placement of the temporary batch plant at the closed Longstreet site. This approval may be rescinded should the proposed activities have an impact at the facility relative to the groundwater monitoring system, gas monitoring system or unauthorized activities on the closed disposal area.

The unlined MSW unit at the subject facility is considered closed subject to the following post closure conditions on the following pages. The owner and/or operator of the facility, FORT BRAGG, is responsible for compliance with these conditions. Condition(s) 12 thru 16 address continued water quality monitoring for the existing ground water monitoring system at the facility.

If you have any questions concerning this closure letter don't hesitate to call Jim Barber at (919) 733-0692 Extension: 344 or Jim Coffey at Extension: 255.

Sincerely,

  
Jim Barber  
Eastern Area Engineer  
Solid Waste Section

cc: Jim Coffey

Mark Fry

Ikje Guyton

Cheryl Marks

✓ Raleigh Central File: FORT BRAGG; Permit #26-02 (CUMBERLAND)

George Whitley

Bill Squire

1646 Mail Service Center, Raleigh, North Carolina 27699-1646  
Phone: 919-733-4996 \ FAX: 919-715-3605 \ Internet: [www.enr.state.nc.us](http://www.enr.state.nc.us)

FACILITY PERMIT NO: 26-02  
Closure of MSWLF Unit  
Date: 21 MAY 2001  
MODIFICATION #1 DATED: 03/19/02

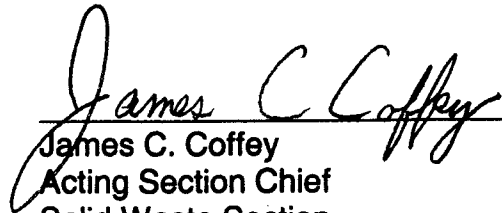
**MUNICIPAL SOLID WASTE LANDFILL  
FACILITY**

**LETTER OF CLOSURE**

**THE DEPARTMENT OF THE ARMY - FORT BRAGG**

is hereby issued a  
**LETTER OF CLOSURE**  
for the FORT BRAGG UNLINED MSWLF Unit  
within the MUNICIPAL SOLID WASTE LANDFILL FACILITY

located off of Longstreet Road, Fort Bragg, Cumberland County, North Carolina in  
accordance with Article 9, Chapter 130A, of the General Statutes of North Carolina and  
all rules promulgated thereunder and subject to the conditions set forth in this letter of  
closure.

  
James C. Coffey  
Acting Section Chief  
Solid Waste Section  
Division Waste Section

**POST-CLOSURE CONDITIONS  
DEPARTMENT OF THE ARMY - FORT BRAGG, CUMBERLAND COUNTY  
MUNICIPAL SOLID WASTE LANDFILL**

**GENERAL CONDITIONS:**

- (1) The owner or operator shall conduct post-closure care, to include groundwater monitoring, for 30 years commencing with the closure date of 3 AUGUST 1999, as indicated by letter dated 12 APRIL 2000 from James W. Blake in accordance with the Section .1600 rules, except as provided under Rule .1627(d)(2).
- (2) The owner or operator shall maintain the integrity and effectiveness of any cap system, including making repairs to the cover as necessary to correct the effects of settlement, subsidence, erosion, or other events, and preventing run-on and run-off from eroding or otherwise damaging the cap system.
- (3) The owner or operator shall maintain and operate the leachate collection system in accordance with the requirements in Rules .1624 and .1626. The Division may allow the owner or operator to stop managing leachate if the owner or operator demonstrates that leachate no longer poses a threat to human health and the environment.
- (4) The owner or operator shall maintain and operate the gas monitoring system to ensure that:
  - (a) The concentration of methane gas generated by the facility does not exceed 25 percent of the lower explosive limit for methane in facility structures (excluding gas control or recovery system components); and
  - (b) The concentration of methane gas does not exceed the lower explosive limit for methane at the facility property boundary.

If methane gas levels exceeding these limits are detected, the owner or operator must take all steps required in Rule .1626(4)(c)

- (5) The owner or operator shall ensure that the MSWLF units do not violate any applicable requirements developed under a State Implementation Plan (SIP) approved or promulgated by the U.S. EPA Administrator pursuant to Section 110 of the Clean Air Act, as amended.

**RECORDATION:**

- (6) Rule .1627(c)(8) requires that, following closure of the MSWLF unit, the owner or operator record a notation on the deed to the landfill facility property, or some other instrument that is normally examined during title search, and notify the Division that the notation has been recorded and a copy has been placed in the operating record. The notation on the deed shall in perpetuity notify any potential purchaser of the property that:

- (a) The land has been used as a landfill facility; and
- (b) Its use is restricted under the closure plan approved by the Division.

The attached certified copy of the closure letter shall be recorded by the Register of Deeds and indexed in the grantor index under the name of the land owner. The certified copy affixed with the Register's seal and the date, book, and page number of the recording shall be returned to the Solid Waste Section.

**FINANCIAL ASSURANCE:**

- (7) The owner or operator must provide continuous coverage for post-closure care in accordance with .1628(e) until released from financial assurance requirements for post-closure care by demonstrating compliance with Rule .1627(d). FORT BRAGG IS EXEMPT FROM THIS REQUIREMENT PURSUANT TO .1628(a)(1).
- (8) The owner or operator shall annually adjust the post-closure cost estimate for inflation within 60 days prior to the anniversary date of the establishment of the financial instrument(s). For owners and operators using the local government financial test, the post-closure cost estimate shall be updated for inflation within 30 days after the close of the local government's fiscal year and before submission of updated information to the Division.
- (a) The owner or operator shall increase the post-closure care cost estimate and the amount of financial assurance provided under .1628(c)(2), if changes in the post-closure plan or MSWLF unit conditions increase the maximum costs of post-closure care.
  - (b) The owner or operator may reduce the post-closure cost estimate and the amount of financial assurance provided under 1628(c)(2), if the cost estimate exceeds the maximum costs of post-closure care remaining over the post-closure care period. Prior to any reduction of the post-closure cost estimate by the owner or operator, a written justification for the reduction shall be submitted to the Division. No reduction of the post-closure cost estimate shall be allowed without Division approval. The reduction justification and the Division approval shall be placed in the MSWLF's operating record.

**POST CLOSURE USES:**

- (9) Post-closure use of the property shall not disturb the integrity of the cap system, base liner system, or any other components of the containment system, or the function of the monitoring systems unless necessary to comply with the requirements in Section .1600. The Division may approve any other disturbance if the owner or operator demonstrates that disturbance of the cap system, base liner system, or other component of the containment system, including any removal of waste, will not increase the potential threat to human health or the environment.
- A. The request to use the Fort Bragg MSWLF unit as a "skeet range fall zone" is not approved as per request dated 8 April 1999, received 15 April 1999.
- B. The request to place a temporary concrete batch plant at the site is approved in accordance with the letter dated 12 March 2002 from Roderick Chisholm for Colonel Gregory G. Bean and the site drawing provided with said letter. The following conditions will apply:
- i. All structures, stockpiles of materials and portland cement containers/trailers shall be a minimum of 150' from any monitoring well at the site, specifically MW-11 as shown on the attached site drawing dated 26 & 27 September 2001;
  - ii. The site of the temporary batch plant shall be within the indicated 300'x300' area as shown on the plan;
  - iii. Truck washout shall be kept to a minimum. If excessive runoff occurs from washout, berming of a discrete area shall be done. This bermed area shall be cleaned of excess concrete/portland cement slurry once hardened and disposed of at the Fort Bragg C&D landfill;
  - iv. No disposal of concrete or concrete washdown/cement slurry shall take place at the Longstreet facility.
  - v. Gates/barricades or other devices shall be placed to limit access to the landfill areas;
  - vi. Access to the site shall be controlled when personnel from Ft. Bragg or the concrete batch plant operator is not present at the site.

**COMPLETION OF THE POST-CLOSURE CARE PERIOD:**

- (10) Following completion of the post-closure care period for each MSWLF unit, the owner or operator shall notify the Division that a certification, signed by a registered professional engineer, verifying that post-closure care has been completed in accordance with the post-closure plan, has been placed in the operating record.

**ONGOING SOLID WASTE MANAGEMENT ACTIVITIES:**

- (11) Continuing solid waste management activities within the MSWLF facility shall be conducted in accordance with all pertinent requirements and permit conditions and shall not violate any post-closure conditions. Any new solid waste activities must be approved by the Solid Waste Section and included as part of the comprehensive Facility Plan.

**GROUND WATER MONITORING CONDITIONS:**

- (12) In accordance with .1630(c), once established at a MSWLF unit, ground-water monitoring shall be conducted throughout the post-closure care period for the MSWLF unit in accordance with the requirements of Rules .1631 through .1637. Monitoring of the surface water shall be in accordance with the requirements of Rule .0602.
- (13) Detection monitoring is required at MSWLF units at all ground-water monitoring wells that are part of the detection monitoring system as established in the approved monitoring plan. At a minimum, the detection monitoring program shall include monitoring for the constituents listed in Appendix I of 40 CFR Part 258.
- (14) The monitoring frequency for all Appendix I detection monitoring constituents shall be at least semiannual during the post-closure period. At least one sample from each well (background and down gradient) shall be collected and analyzed during semiannual sampling events.
- (15) If the owner or operator determines that there is a statistically significant increase over background for one or more of the constituents listed in Appendix I or whenever a violation of the North Carolina ground-water quality standards (15A NCAC 2L, .0202) has occurred at any monitoring well, the owner or operator:
- (a) Shall within 14 days of this finding, report to the Division and place a notice in the operating record indicating which constituents have shown statistically significant changes from background levels.
  - (b) Shall within 90 days of this finding, establish an assessment monitoring program in accordance with Rule .1634 except as provided for in Rule .1633(c)(3).
  - (c) Shall within 90 days of finding that any of the constituents listed in Appendix II have been detected at a statistically significant level exceeding the ground-water protection standards, initiate an assessment of corrective action measures in accordance with Rule .1635.

- (d) Shall select based on the results of the corrective measures assessment, a remedy that, at a minimum, meets the standards listed in Rule.1636(b). Within 14 days of selecting a remedy, the permittee shall submit an application to modify the permit describing the selected remedy to the Division for evaluation and approval. The application shall be subject to the processing requirements set forth in Rule .1604 © of this Section. The application shall include the demonstrations necessary to comply with the financial assurance requirements set forth in Paragraph (d) of Rule .1628.
  - (e) Shall, based on the approved schedule for initiation and completion of remedial activities, establish and implement a corrective action ground-water monitoring program, implement the approved corrective action remedy; and take any interim measures necessary to ensure the protection of human health and the environment in accordance with Rule .1637.
- (16) The ground-water monitoring program shall include consistent sampling and analysis procedures in accordance with Rule .1632 that are designed to ensure monitoring results that provide an accurate representation of ground-water quality at the background and down gradient wells.





DEPARTMENT OF THE ARMY  
HEADQUARTERS, XVIII AIRBORNE CORPS AND FORT BRAGG  
FORT BRAGG, NORTH CAROLINA 28310

REPLY TO  
ATTENTION OF:

March 12, 2002



Public Works Business Center

Jim Coffey  
North Carolina Department of Environmental  
Health and Natural Resources  
Division of Waste Management  
1646 Mail Service Center  
Raleigh, NC 27699-1646

Dear Mr. Coffey:

We are requesting permission to construct a concrete batch plant adjacent to the Longstreet Municipal Solid Waste Landfill (MSWLF), number 26-02, closed in 1997. Enclosed is a site plan showing the proposed siting for the batch plant and the stockpiles for production. It also shows the proposed traffic plan; please note that vehicles will not be allowed east of the primary access road. We can arrange a site visit and meeting with the contractors who will operate the batch plant at your request.

Please contact Kathryn Haught at 910-396-5469 if you have any questions or need any clarification.

Sincerely,

*Gregory G. Bean*  
GREGORY G. BEAN  
Colonel, EN  
Director of Public Works  
Business Center

Enclosure

**CADDELL**

CADDELL CONSTRUCTION CO., INC.  
P.O. BOX 73309  
FORT BRAGG, NC 28307-3309  
TEL: 910-436-0213  
FAX: 910-436-1192  
EMAIL: 90922@CADDELL.COM

SHIPPING ADDRESS  
BLDG. C-2626  
GRUBER ROAD  
BETWEEN TAGATAY AND  
BIAZA STREET  
FORT BRAGG, NC 28307-3309

March 5, 2002

*Serial Letter # CAD-0894*

**Robert L. Cagle, III, P.E.**  
Administrative Contracting Officer  
U.S. Army Corps of Engineers  
P.O. Box 71558  
Fort Bragg, NC 28307-1558

Re: **1st Brigade Barracks Complex Project**  
**Fort Bragg, North Carolina**  
**Contract No. DACA21-99-C-0047**  
**Job No. 90922**

MAR - 5 2002

Subject: Concrete Batch Plant

Dear Mr. Cagle:

Caddell Construction Co., Inc.'s subcontractor will install a portable concrete batch plant at the old post landfill. This plant will be owned and operated by S & W Ready Mix Concrete. This plant will provide concrete to Caddell Construction Co., Inc. and its subcontractors on the 1<sup>st</sup> Brigade Barracks, Combat Aviation Brigade and the Separates Barracks projects. Support to other contractors on base is not authorized. The location of the plant is shown on the attached map. The issues addressed here were discussed during an on-site meeting with the Corps of Engineers, Caddell Construction Co., Inc., S & W Ready Mix Concrete and PWBC.

A proposed lay-out of the plant areas is attached. High visibility orange fence will be placed on the east side of the hard surface entrance road. All traffic will stay on the west side of this fence, which is approximately 125 feet from the old landfill. All batching activities will be inside the berm area.

Traffic will follow the pattern shown on the attached sketch. S & W Ready Mix Concrete will construct a small driveway, which will help with traffic flow. This temporary driveway is shown on the site sketch.

Water for the plant will be from the fire hydrant shown on the drawing S & W Ready Mix Concrete will attach an adapter to the fire hydrant for their required water.

The plant has a generator for electrical power but a 120v circuit is need for aggregate heaters. We would like to coordinate tapping into the scale house power and running an electrical circuit to the plant. This will be at no cost to the government.

Trucks will leave the site at the end of each shift and return to S & W Ready Mix Concrete's Reilly Road complex for maintenance and washout. However S & W Ready Mix Concrete will construct a washout area on the batch plant site to cover unanticipated washing requirements S & W Ready Mix Concrete will maintain this area and insure no concrete residue leaves the site. Periodic cleanup will occur when necessary. The entire site will be returned to its original condition when the plant is closed.

S & W Ready Mix Concrete will instruct all their employees that the test wells, which are painted white, must not be disturbed.

The entrance cable must be double locked so both PWBC S & W Ready Mix Concrete can have access to the site.

Additional coordination will be required to facilitate movement through the access gate.

S & W Ready Mix Concrete will provide portable toilet facilities on site.

Should you have any questions or need further assistance please do not hesitate to contact me.

Sincerely,  
CADELL CONSTRUCTION COMPANY, INC.



E. Randolph Marshall  
Quality Control Manager

cc: MGM File (90922)  
Read File  
Jobsite Q.C File  
Jobsite File  
S & W Ready Mix Concrete File

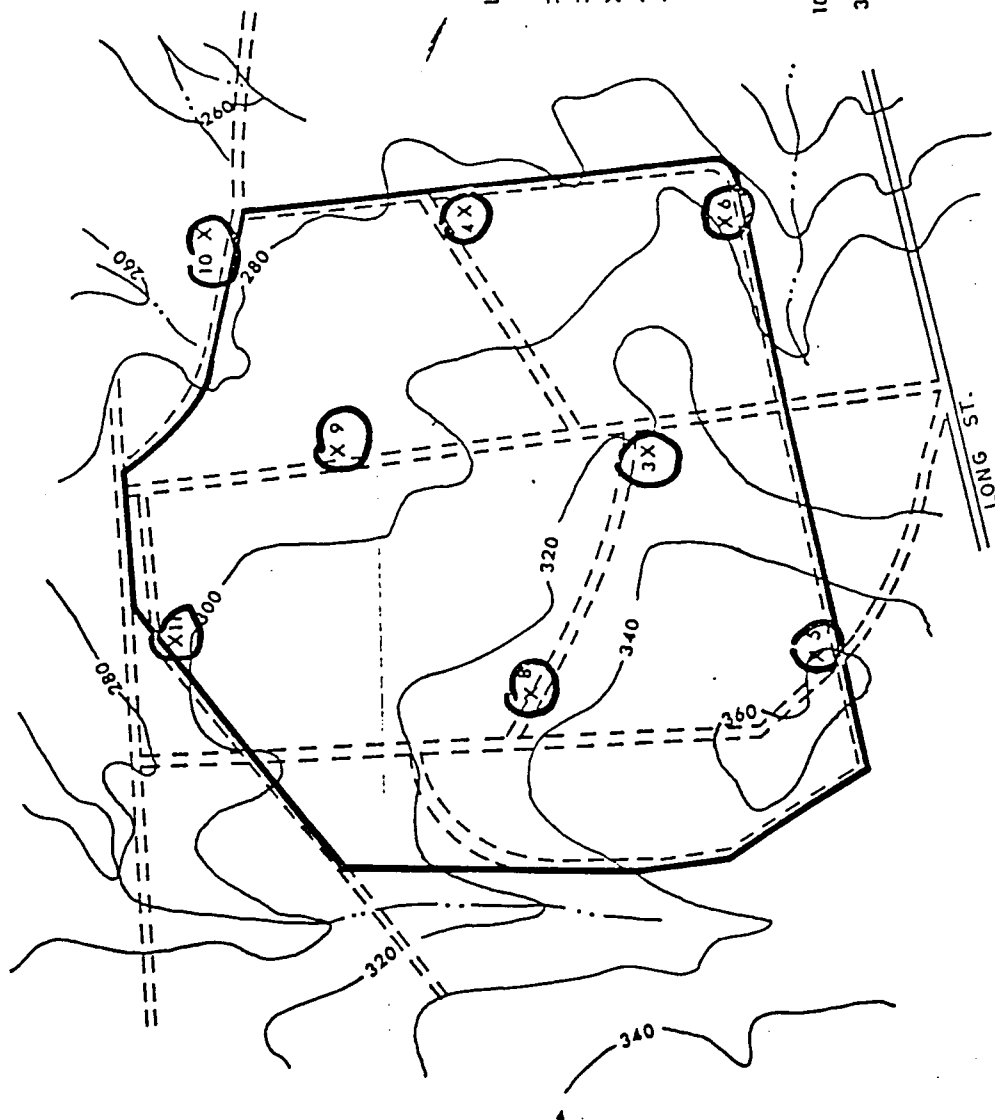


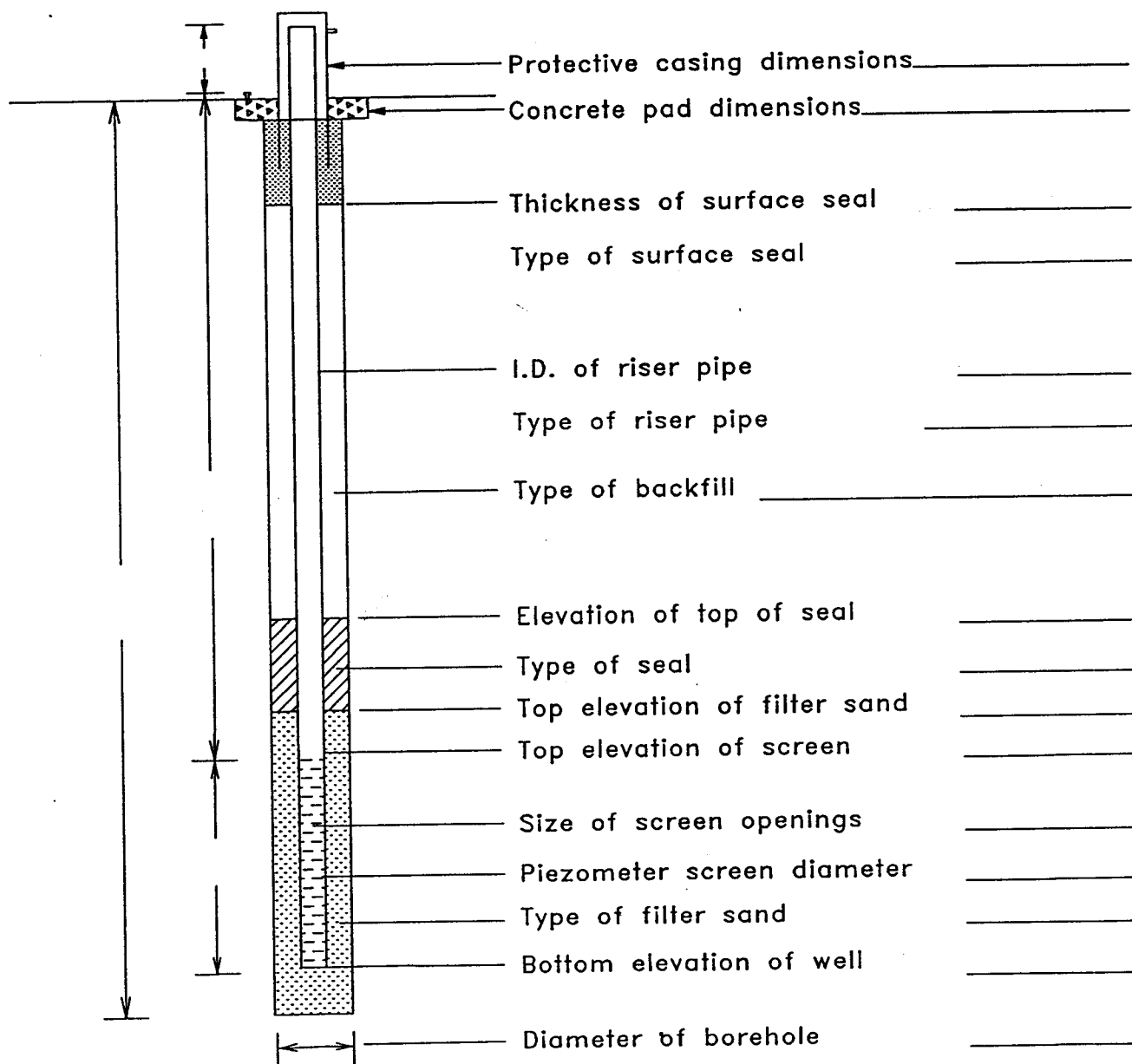
FIGURE 2. PROPOSED SANITARY LANDFILL SITE 2 FORT BRAGG, N.C.

# BPA Environmental & Engineering, Inc.

## MONITORING WELL INSTALLATION SKETCH

Project \_\_\_\_\_  
 Surveyed by \_\_\_\_\_  
 Surveyed from \_\_\_\_\_  
 Elevation of concrete pad reference  
 point (bolt) \_\_\_\_\_  
 Elevation of top of well \_\_\_\_\_  
 Approximate elevation of  
 land surface \_\_\_\_\_

Well Number \_\_\_\_\_  
 Constructed on \_\_\_\_\_  
 Depth to water measured from  
 top of well pipe \_\_\_\_\_  
 Water level elevation \_\_\_\_\_  
 Water level taken on \_\_\_\_\_  
 \* NOTE: Drawing not to scale.



MONITORING WELL INSTALLATION SKETCH - SHALLOW WELL

FIGURE 3

# BPA Environmental & Engineering, Inc.

## MONITORING WELL INSTALLATION SKETCH

Project \_\_\_\_\_

Well Number \_\_\_\_\_

Surveyed by \_\_\_\_\_

Constructed on \_\_\_\_\_

Surveyed from \_\_\_\_\_

Depth to water measured from  
top of well pipe \_\_\_\_\_

Elevation of concrete pad reference  
point (bolt) \_\_\_\_\_

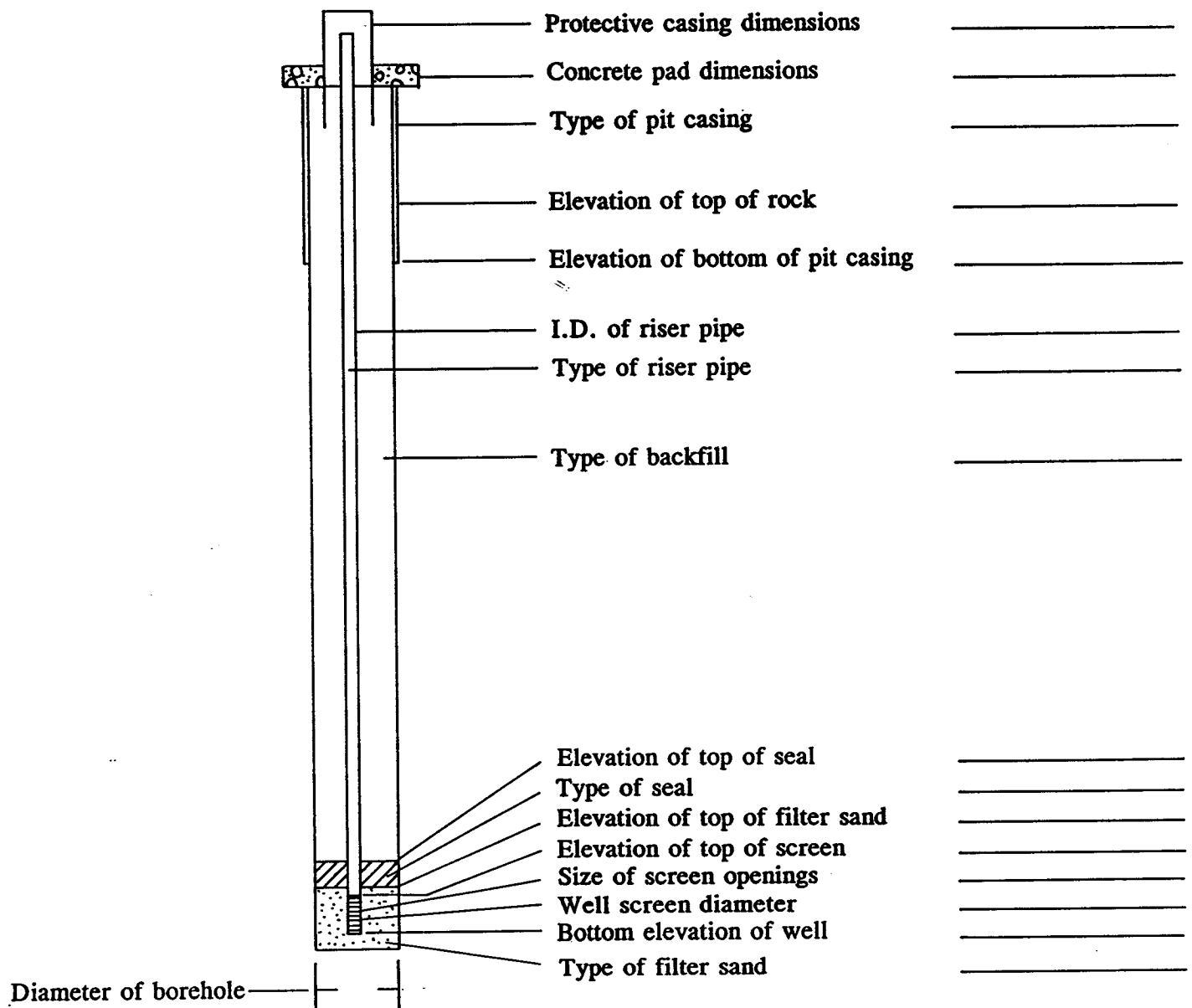
Water level elevation \_\_\_\_\_

Elevation of top of well \_\_\_\_\_

Water level date/time \_\_\_\_\_

Approximate elevation of land surface \_\_\_\_\_

NOTE: Drawing not to scale



MONITORING WELL INSTALLATION SKETCH - DEEP WELL

FIGURE 4